**Advanced Biology Syllabus, 2014-2015**

**Geraldine Public Schools**

**Mr. Rocksund**

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Welcome to the 2014-2015 school year here at Geraldine Public Schools. My name is Mr. Rocksund and I am the 7- 12 science teacher here in Geraldine. Please take a moment to read through this syllabus regarding the course description, classroom expectations, attendance, and grading policies. After reading through the syllabus, please sign the last page to indicate that you and your parents have read and understand the syllabus. Please feel free to contact me with any further questions you may have regarding the upcoming school year.

**Advanced Biology, 5th period, 12:12-1:06**

Course Description

This course will cover a range of topics in Biology. Biology is the study of life. This course is aligned with the Next Generation Science Standards (National Science Content Standards) for Life Science (Biology). Furthermore, this course’s curriculum will be developed to meet AP Biology requirements. This is a college-level course with demanding curriculum. At the end of the course, students will have the option of taking the AP Biology exam for college credit.

This course centers around 4 BIG IDEAS in BIOLOGY:

1. *Evolution:* the theory of evolution states that living organisms share a common ancestor, explaining their unity, but have change over time, explaining their diversity
2. *Energy and Homeostasis:* organisms share many characteristics, such as basic cellular organization, methods used to maintain homeostasis, and the capability to respond to reproduce
3. *Information and Signaling:* information encoded in DNA provides the blueprint for diverse forms of life, and when mutated and reshuffled during reproduction, provides the raw materials of evolution
4. *Interactions and Systems:* living organisms interact with each other and with the physical environment to form populations, communities, and ecosystems which make up the biosphere

Major units to be covered include:

1st Quarter: The Cell, Genetic Basis of Life

* Basic Chemistry/Organic Molecules
* Cell Structure and Function, Metabolism
* Photosynthesis, Cellular Respiration
* Cell Cycle, Mitosis
* Meiosis, Molecular Biology

2nd Quarter: Evolution, Microbiology and Evolution

* Darwin and Evolution, Origin of Life
* Taxonomy
* Viruses, Bacteria, Archaea
* Protists and Fungi

3rd Quarter: Plant/Animal Evolution and Diversity

* Plant Evolution and Diversity
* Flowering Plants: Structure, Organization, Growth, Nutrition/Transport, Reproduction
* Invertebrate and Vertebrate Evolution
* Human Evolution

4th Quarter: Comparative Animal Biology and Behavioral Ecology

* Animal Organization and Homeostasis, Animal Systems (Circulatory, Lymphatic, Digestive, Nervous, Endocrine, Reproductive)
* Animal Development
* Behavioral and Population Ecology
* Major Ecosystems of the Biosphere, Conservation of Biodiversity

A Typical Day in Class

Students will start each day with a Bellringer, which serves to check for understanding previously covered material or for pre-assessment of up-coming material. A “mini-lesson” will be given via a power point presentation accompanied by group discussion. Then, students will have the rest of the period to work actively with the material whether through a lab experience or through other means to develop their own connections with the material. A clicker quick assessment will be performed at the end of class to reinforce understanding of content covered. The daily routine will fluctuate as needed in consideration of quizzes, tests, projects, and laboratory work.

Classroom Expectations

*Classroom Rule:* Respect each other!

*Student Expectations*:

1. Be seated in the classroom when the tardy bell rings.

2. Come to class prepared to work.

3. Please do not bring food or beverages into the classroom. Water in a sealed container is fine. Beyond that, eating and drinking is not allowed in the science classroom without the teacher’s permission. *No food, beverages (including water), or chewing gum during lab work!*

4. Treat students and staff with friendliness and respect.

5. Get assignments in on time. Late work is not acceptable. 10% will be deducted for the first day late and no partial credit will be given after that. Assignments may be turned in after an excused absence without penalty.

*Teacher Expectations:*

1. I will provide a respectful and safe learning atmosphere.

2. I will make all necessary accommodations for students with specialized situations given the correct documentation.

3. I will return all assignments, quizzes, tests, and homework in a timely fashion. Feedback is critical for learning. I intend to return all work assignments quickly and with meaningful feedback.

4. I will be available to answer any questions that the student, parent(s), or community member(s) may have regarding the science classroom.

5. I will strive to make learning science a fun, challenging, and positive experience for all.

Classroom Discipline Procedures

1st offense: a verbal warning in class

2nd offense: 20 minute lunch-time detention served no later than the next day, phone call home.

3rd offense: Conference with parents and administration; further arrangements as needed.

Attendance and Tardiness

Students will maximize their learning by being in class. With the exception of emergencies, illnesses, and extracurricular activities, students are expected to be at school and ready participate in the classroom when the bell rings. The class will follow the Geraldine Attendance Policy as stated in the student handbook. Students are allowed one tardy per semester. Also, they will be docked points in their classroom participation grade. If the tardiness is persistent, a 20 minute lunch-time detention and a phone call home will occur.

Grading Policies

Grades are on a weighted grade system. Each assessment strategy will be given a percentage out of 100%. Tests are weighted most heavily (40%) and classroom participation the least (10%).

*Laboratory Work/Journal*: 20%

Participating in lab experiments and maintaining a laboratory journal are critical parts of chemistry. This includes adhering to lab safety procedures and keeping an organized record of laboratory work. Lab notebooks will be checked for completion periodically.

*Daily Assignments/Homework*: 30%

Homework and other class assignments will be given routinely. It is the student’s responsibility to complete homework on time unless an acceptable reason prevents the student from submitting the homework on time. However, students will be given time in class to complete most daily assignments and homework.

*Assessments*: 40%

Tests and projects will be given at the end of each major unit. Multiple assessment strategies will be incorporated into tests and projects. Each test or project will have an assignment outline and grading rubric associated with them and will be made available to the student prior to the assessment.

*Classroom Participation*: 10%

It is imperative that students participate fully in the learning process. Students will be awarded points (0-3) each day for participating in the lesson and for their classroom citizenship. Students who have excused absences or extracurricular activities during the class will be awarded the full points. However, when students are in class, they are expected to put their full effort into learning.

Grading Scale

The following grading scale will be utilized to determine classroom letter grades. Percentages will be rounded up to the nearest whole percentage number.

|  |  |
| --- | --- |
| **Percentage** | **Grade** |
| 90-100% | A |
| 80-89% | B |
| 70-79% | C |
| 60-69% | D |
| Below 60% | F |

I have read and understand the syllabus for Mr. Rocksund’s classroom for the 2014-2015 school year. Thank you so much for taking the time to read the syllabus!

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Student signature Date

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Parent/ Guardian signature Date